CLAIMS:

1. A method of forming a material adjacent a conductive electrical component comprising the following steps:

providing the conductive electrical component over a substrate;

spinning a liquid onto the substrate and adjacent the conductive electrical component;

at least partially curing the liquid into a substantially self-supporting mass; and

at least partially vaporizing the mass.

2. The method of claim 1 wherein the mass comprises polyimide or photoresist and wherein the polyimide or photoresist is at least partially vaporized.

3. The method of claim 1 wherein the mass comprises a solvent after at least partially curing the liquid and wherein the solvent is removed from the mass as the mass is at least partially vaporized.

4. The method of claim 1 wherein the mass comprises two solvents as the liquid is spun onto the substrate, one of the solvents being more volatile than the other, wherein said more volatil solvent substantially evaporates before the mass is at least partially vaporized, wherein said other solvent substantially remains in the mass until the mass is at least partially vaporized, and wherein said other solvent is removed from the mass as the mass is at least partially vaporized.

5. The method of claim 1 wherein the mass is substantially totally vaporized.

6. The method of claim 1 further comprising forming a layer over the mass before at least partially vaporizing the mass.

7. The method of claim 1 wherein the mass is only partially vaporized to leave a matrix adjacent the conductive electrical component, the matrix having at least one void within it.

8. The method of claim 7 further comprising forming a layer over the matrix after partially vaporizing the mass.

9. A method of forming a material adjacent a conductive electrical component comprising the following steps:

providing a mass adjacent the conductive electrical component, the mass comprising pores, the pores having a size; and

expanding the size of the pores.

10. The method of claim 9 wherein the pores are expanded by vaporizing the mass.

11. The method of claim 9 wherein the mass comprises a first material and a second material and wherein the pores are expanded by substantially totally vaporizing the first material while not totally vaporizing the second material.

12. A method of forming a material adjacent a conductive electrical component comprising the following steps:

providing a mass adjacent the conductive electrical component; and

partially vaporizing the mass to form a matrix adjacent the conductive electrical component, the matrix having at least one void within it.

13. The method of claim 12 wherein the mass comprises a first material and wherein the partial vaporization of the mass comprises partially vaporizing the first material.

14. The method of claim 12 wherein the mass comprises a first material and a second material and wherein the partial vaporization of the mass comprises substantially totally vaporizing the first material while not totally vaporizing the second material.

15. The method of claim 12 further comprising forming a layer over the mass before partially vaporizing the mass.

16. The method of claim 12 further comprising forming a layer over the matrix after partially vaporizing the mass.

17. The method of claim 12 further comprising:

before partially vaporizing the mass, anisotropically etching the mass to form a spacer from the mass adjacent the conductive electrical component.

18. A method of forming a material adjacent a conductive electrical component comprising the following steps:

providing a mass adjacent the conductive electrical component, the mass comprising polyimide or photoresist; and

at least partially vaporizing the mass.

19. The method of claim 18 wher in the conductive electrical component is over a substrate and wherein the step of providing the mass comprises spinning the mass over the substrate.

20. The method of claim 18 wherein the mass is substantially totally vaporized.

21. The method of claim 18 further comprising forming a layer over the mass before at least partially vaporizing the mass.

22. The method of claim 18 wherein the mass is only partially vaporized to leave a matrix adjacent the conductive electrical component, the matrix having at least one void within it.

23. The method of claim 22 further comprising forming a layer over the matrix after partially vaporizing the mass.

24. A method of forming an insulative spacer adjacent a conductive electrical component comprising the following steps:

providing a mass adjacent the conductive electrical component;

anisotropically etching the mass; and

partially vaporizing the mass to form an insulative spacer adjacent the conductive component, the insulative spacer comprising a web having at least one void within it.

25. A method of forming an insulative spacer adjacent a conductive electrical component comprising the following steps:

providing a mass adjacent the conductive electrical component;

anisotropically etching the mass;

forming a layer over the anisotropically etched mass; and

at least partially vaporizing the mass to form at least one void between the layer and the conductive electrical component, the layer and the at least one void together comprising a insulative spacer adjacent the conductive electrical component.

26. The method of claim 25 wherein the mass is substantially totally vaporized.

27. The method of claim 25 wherein the mass is only partially vaporized to leave a matrix adjacent the conductive electrical component, the matrix having the at least one void within it.

28. A method of forming a material between a pair of conductive electrical components comprising the following steps:

providing a mass between the pair of conductive electrical components; and

partially vaporizing the mass to form a matrix between the pair of conductive electrical components, the matrix having at least one void within it.

29. The method of claim 28 wherein the conductive electrical components are conductive lines.

30. The method of claim 28 further comprising forming a layer over the mass before partially vaporizing the mass.

31. The method of claim 28 further comprising forming a layer over the matrix after partially vaporizing the mass.

32. The method of claim 28 wherein the pair of conductive electrical components are horizontally displaced from one another.

33. The method of claim 28 wherein the pair of conductive electrical components are vertically displaced from one another.

34. The method of claim 28 wherein the mass extends entirely from one of the pair of conductive electrical components to another of the pair of conductive electrical components.

35. The method of claim 28 wherein the mass does not extend entirely from one of the pair of conductive electrical components to another of the pair of conductive electrical components.

36. The method of claim 28 further comprising:

before partially vaporizing the mass, anisotropically etching the mass to form spacers adjacent the conductive electrical components.

37. The method of claim 28 wherein the mass comprises carbon.

38. The method of claim 28 wherein the partial vaporizing takes place under selected conditions, the mass comprising a mixture of a material which is substantially non-vaporizable under the selected conditions and a material which is substantially vaporizable under the selected conditions.

39. The method of claim 28 wherein the mass comprises a mixture of carbon and silicon dioxide.

40. The method of claim 28 wherein the mass comprises a mixture of carbon and SiC_x, wherein x is from about 0.2 to about 1.5.

41. The method of claim 28 wherein the mass comprises a material selected from the group consisting of photoresist and polyimide.

42. A method of forming a material between conductive lectrical components comprising the f llowing steps:

forming a mass;

forming conductive electrical components within the mass and separated by an expanse of the mass; and

partially vaporizing the expanse of the mass to form a matrix between the pair of conductive electrical components, the matrix having at least one void within it.

43. The method of claim 42 wherein the conductive electrical components are conductive lines.

44. The method of claim 42 further comprising forming a layer over the mass before partially vaporizing the mass.

45. The method of claim 42 further comprising forming a layer over the matrix after partially vaporizing the mass.

46. The method of claim 42 wherein the mass comprises carbon.

47. The method of claim 42 wherein the partial vaporizing takes place under selected conditions, the mass comprising a mixture of a material which is substantially non-vaporizable under the selected conditions and a material which is substantially vaporizable under the selected conditions.

48. The method of claim 42 wherein the mass comprises a mixture of carbon and silicon dioxide.

49. The method of claim 42 wherein the mass comprises a mixture of carbon and SiC_x, wherein x is from about 0.2 to about 1.5.

50. The method of claim 42 wherein the mass comprises a material selected from the group consisting of photoresist and polyimide.

51. A method of forming a material between a pair of conductive electrical comp nents comprising the following steps:

forming at least one support member b tween th pair of conductive electrical components, the support member not comprising a conductive interconnect;

providing a mass between the at least one support member and each of the pair of conductive electrical components; and

vaporizing the mass to a degree effective to form at least one void between the support member and each of the pair of conductive electrical components.

52. The method of claim 51 wherein the support member comprises an insulative material.

53. The method of claim 51 wherein the vaporizing forms a plurality of voids between the support member and each of the pair of electrical components.

54. The method of claim 51 wherein the support member comprises a conductive material not forming an operative conductive part of any circuitry.

55. The method of claim 51 further c mprising providing the mass outwardly of at least one of the pair of conductive electrical components.

56. The method of claim 51 further comprising forming a layer over the mass before vaporizing the mass.

57. The method of claim 51 wherein the pair of conductive electrical components are horizontally displaced from one another.

58. The method of claim 51 wherein the pair of conductive electrical components are vertically displaced from one another.

59. The method of claim 51 further comprising planarizing the mass.

60. The method of claim 51 wherein the mass comprises carbon.

61. The method of claim 51 wherein the vaporizing takes place under selected conditions, the mass comprising a mixture of a material which is substantially non-vaporizable under the selected conditions and a material which is substantially vaporizable under the selected conditions.

62. The method f claim 51 wherein the mass comprises a mixture of carbon and silicon dioxide.

63. The method of claim 51 wherein the mass comprises a mixture of carbon and SiC_x, wherein x is from about 0.2 to about 1.5.

64. The method of claim 51 wherein the mass comprises a material selected from the group consisting of photoresist and polyimide.

65. A method of forming a material between a pair of conductive electrical components comprising the following steps:

forming a mass;

forming a pair of conductive electrical components within the mass and separated by an expanse of the mass;

forming at least one support member within the expanse of the mass, the support member not comprising a conductive interconnect; and

vaporizing the expanse of the mass to a degree effective to form at least one void between the support member and each of the pair of conductive electrical components.

66. The method of claim 65 wherein the vaporizing forms a plurality of voids between the support member and each of the pair of electrical components.

67. The method of claim 65 wherein the support member comprises an insulative material.

68. The method of claim 65 wherein the support member comprises a conductive material not forming an operative conductive part of any circuitry.

69. The method of claim 65 further comprising forming a layer over the mass before vaporizing the mass.

70. The method of claim 65 wherein the mass comprises carbon.

71. The method of claim 65 wherein the vaporizing takes place under selected conditions, the mass comprising a mixture of a material which is substantially non-vaporizable under the selected conditions and a material which is substantially vaporizable under the selected conditions.

72. The method of claim 65 wherein the mass comprises a mixture of carbon and silicon dioxide.

73. The method of claim 65 wherein the mass comprises a mixture of carbon and SiC_x, wherein x is from about 0.2 to about 1.5.

74. The method of claim 65 wherein the mass comprises a material selected from the group consisting of photoresist and polyimide.

75. An insulating material adjacent a conductive electrical component, the insulating material comprising a matrix and at least one void within the matrix, wherein the matrix comprises a partially vaporized material.

76. The insulating material of claim 75 comprising a plurality of voids within the matrix.

77. The insulating material of claim 75 wherein the matrix comprises partially vaporized carbon.

78. The insulating material of claim 75 wherein the partially vaporized material is selected from the group consisting of polyimide and photoresist.

79. The insulating material of claim 75 comprising a dielectric constant of less than or equal to about 2.

80. An insulating material between a pair of conductive electrical components, the insulating material comprising a matrix and at least one void within the matrix, the matrix comprising a partially vaporized material.

81. The insulating material of claim 80 comprising a plurality of voids within the matrix.

82. The insulating material of claim 80 comprising a dielectric constant of less than or equal to about 2.

83. The insulating material of claim 80 wherein the matrix comprises partially vaporized carbon.

84. The insulating material of claim 80 wherein the partially vaporized material is selected from the group consisting of polyimide and photoresist.

85. The insulating material of claim 80 wherein the matrix comprises silicon dioxide.

86. The insulating material of claim 80 wherein the matrix comprises SiC_x, and wherein $_x$ is greater than 0.

87. An insulating region between a pair of conductive electrical components comprising:

a support member, the support member not comprising a conductive interconnect; and

at least one void between the support member and at least one of the pair of conductive electrical components.

88. The insulating region of claim 87 wherein the support member is vertically displaced from one of the pair of conductive electrical components and horizontally displaced from another of the pair of conductive electrical components.

89. The insulating region of claim 87 comprising a dielectric constant of less than or equal to about 2.

90. The insulating region of claim 87 wherein the support member is vertically displaced from one of the pair of conductive electrical components and horizontally displaced from another of the pair of conductive electrical components, the support member being in physical contact with the conductive electrical component from which it is vertically displaced.

91. An insulating region between a pair of conductive electrical components comprising:

a support member between the conductiv lectrical components, the support member not comprising a conductive interconnect; and

at least one void between the support member and each of the pair of conductive electrical components.

92. The insulating region of claim 91 further comprising a matrix between the support member and at least one of the conductive electrical components, at least one of the voids being within said matrix.

93. The insulating region of claim 91 wherein the matrix comprises partially vaporized carbon.

94. The insulating region of claim 91 comprising a dielectric constant of less than or equal to about 2.

95. The insulating region of claim 91 wherein the matrix comprises a partially vaporized material selected from the group consisting of polyimide and photoresist.

96. The insulating region of claim 91 wherein the matrix comprises silicon dioxide.